



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,716	06/30/2000	Yeow Chong Chuah	Q-58912	6895

7590 11/25/2003  
Sughrue Mion Zinn Macpeak & Seas  
2100 Pennsylvania Avenue NW  
Washington, DC 20037-3202

EXAMINER

FILIPCZYK, MARCIN R

ART UNIT	PAPER NUMBER
----------	--------------

2171

DATE MAILED: 11/25/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/582,716

Applicant(s)

CHUAH, YEOW CHONG

Examiner

Marc R Filipczyk

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on amendment of 5/20/03 and RCE 8,18,03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Amendment***

This Action is responsive to Applicant's RCE request filed on August 18, 2003 (paper # 12) and amendment filed on May 20, 2003 (paper # 9). Claims 1-12 remain for examination and a new claim 13 has been added.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 18, 2003 has been entered.

***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the tabulation process must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the **first paragraph** of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

Art Unit: 2171

pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification and figures do not describe how tabulation is performed in such a way as to enable one skilled in the art to make and/or use the invention.

Regarding claims 2-7 and 9-13 depend from 1 and 8 respectively, therefore contain the deficiencies of those claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the **second paragraph** of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 8, the term “distinct” is indefinite. How is “each distinct data value” semantically different from “each data value”? Second, the term “field” is indefinite. Examiner draws Applicant’s attention to page 4 of the specification, table 1; how many fields are disclosed? Is it 3 (columns), 15 (column/category values), 18 (all the fields) or 2 (primary data fields, line 16, Applicant)? Fields must be clearly defined. Next, the phrase “cell of a result array” is indefinite. How many values can a cell hold? What is the format of the result array and

Art Unit: 2171

what is incremented? Last "tabulation" is indefinite, how is the tabulation performed to derive with the result array?

Regarding claims 2-7 and 9-13 depend from 1 and 8 respectively, thus contain the deficiencies of those claims.

Appropriate corrections are required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 13 are rejected under 35 U.S.C. 102(b) as best as the Examiner is able to ascertain as being anticipated by the disclosed art by the Applicant, Sampson et al (U.S. Patent No. 5,212,639).

Regarding claim 1, Sampson discloses a system and method for data tabulation processing of a data file (raw data) having records (data entries) in data fields, comprising: (col. 3, lines 11-15, Sampson)

i) a preprocessing stage in which, for each individual data field, each distinct data value is identified and allocated a numerical identifier unique for that field; (col. 9, lines 26-30)

(Note: every account number (field) is assigned a separate numerical section number)

Art Unit: 2171

ii) a tabulation stage in which, for each record, a cell of a result array (col. 9, lines 45-48) is determined based on the numerical identifiers for that record (col. 9, lines 53-55), and the result array cell incremented (fig. 6, item 52; *loop*).

(Note: result array is the sparse matrix which is a dimensional array)

Regarding claims 2 and 13, Sampson discloses wherein the preprocessing stage includes generating from said data file an encoded data file containing the numerical identifiers for the data values in each field (col. 9, lines 26-30), and a mapping file which stores a mapping/correspondence between each of the distinct data values in the fields and the corresponding numerical identifiers (fig. 5; I[1]-I[2n] are numerical identifiers for data values A[1]-A[n] and their correspondence).

Regarding claim 3, Sampson discloses a plurality of encoded data files are generated in the pre-processing stage, one for each of the data fields (fig. 5; I[1]-I[2n] are numerical identifiers generated for every distinct data value A[1]-A[n]).

Regarding claim 4, Sampson discloses generating result from said result array and said mapping file (col. 9, lines 53-56).

Regarding claim 5, Sampson discloses initializing the result array having a number of cells determined by the number of numerical identifiers in the data fields (col. 9, lines 45-48).

Art Unit: 2171

(Note: size of the sparse matrix (result array) is based on the numerical identifiers which is twice larger than the number of accounts)

Regarding claims 6, Sampson discloses at least two data fields (fig. 5, I[1] and I[2]) from the plurality of data fields for tabulation, and generating the result array utilizing the numerical identifiers for the selected data fields (col. 9, lines 53-56)

Regarding claim 7, Sampson discloses the result array is of the form:  
result array (sparse matrix) is composed of: numerical identifiers (I[1]-I[2n]) and number of distinct values in the selected fields (A[1]-A[n]).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-12 are rejected under 35 U.S.C. 103(a) as best as the Examiner is able to ascertain as being unpatentable by the disclosed art by the applicant over Sampson et al (U.S. Patent No. 5,212,639) in view of Rees et al (U.S. Patent No. 5,748,878).

Art Unit: 2171

Regarding claim 8, Sampson discloses a system and method for data tabulation processing of a data file (raw data) having records (data entries) in data fields, comprising: (col. 3, lines 11-15, Sampson)

i) a preprocessing stage in which, for each individual data field, each distinct data value is identified and allocated a numerical identifier unique for that field; (col. 9, lines 26-30, Sampson)

(Note: every account number (field) is assigned a separate numerical section number)

ii) a tabulation stage in which, for each record, a cell of a result array (col. 9, lines 45-48, Sampson) is determined based on the numerical identifiers for that record (col. 9, lines 53-55), and the result array cell incremented (fig. 6, item 52; *loop*, Sampson) (Note: result array is the sparse matrix which is a dimensional array), further Sampson teaches both the preprocessing and tabulation are performed and managed by one processor, but does not specifically disclose two processors, hence a tabulation processor is not expressly taught.

Rees on the other hand discloses a preprocessor (fig. 3, 110, Rees) and a data reduction processor (fig. 3, 114, Rees) that could preprocess and tabulate data taught by Sampson (Note: data reduction processor is used as a tabulation processor). Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified Sampson's system by implementing Rees's tabulation processor to separately tabulate data. One would be motivated to unite the two arts above and use them together because both teach tabulation and processing of data. As a benefit of using two processors versus one, Sampson in view of Rees would achieve faster compilation of data.



Regarding claim 9, Sampson/Rees disclose wherein the preprocessing stage includes generating from said data file an encoded data file containing the numerical identifiers for the data values in each field (col. 9, lines 26-30, Sampson), and a mapping file which stores a correspondence between each of the distinct data values in the fields and the corresponding numerical identifiers (fig. 5; I[1]-I[2n] are numerical identifiers for data values A[1]-A[n] and their correspondence, Sampson).

Regarding claim 10, Sampson/Rees disclose a plurality of encoded data files generated in the pre-processing stage, one for each of the data fields (fig. 5; I[1]-I[2n] are numerical identifiers generated for every distinct data value A[1]-A[n], Sampson).

Regarding claim 11, Sampson/Rees disclose at least two data fields (fig. 5, I[1] and I[2], Sampson) from the plurality of data fields for tabulation, and generating the result array utilizing the numerical identifiers for the selected data fields (col. 9, lines 53-56, Sampson)

Regarding claim 12, Sampson/Rees disclose the result array is of the form:

result array (sparse matrix) is composed of: numerical identifiers (I[1]-I[2n]) and number of distinct values in the selected fields (A[1]-A[n], Sampson).

### ***Response to Arguments***

Applicant's arguments filed on May 20, 2003 have been fully considered but they are not persuasive. The arguments and responses are listed below.

Applicant argues on page 9 of the 5/20/03 response that, “the term field in relation to the data and the mapping files would be clear to a hypothetical person possessing the ordinary skill level in the pertinent art, data tabulation processing.”

In response to Applicant’s argument, Examiner agrees if the term “field” was clearly described in the specification, or unilaterally used in the claims. But it’s not, thus the term field along with other claimed features after careful re-examination of the claims are rejected under 35 U.S.C. 112 first and second paragraphs (see rejection).

Applicant argues on pages 10 of the 5/20/03 response that, “Sampson discloses an array, the array is not a result array.

In response to Applicant’s argument, Examiner disagrees. The Examiner may have misinterpreted some claimed features partially because of the 35 U.S.C. 112 indefinite issues, however, after careful re-examination of the claims along with the 5/20/03 amendment including a clearer description of the invention, Examiner has reevaluated the references used and a new rejection based on the previously disclosed prior art has been made accordingly.

Regarding Applicant’s remaining arguments, they are now addressed in the 35 U.S.C. 102 and 103 rejections.

Art Unit: 2171

With respect to all the pending claims 1-13, Examiner respectfully traverses Applicant's assertion based on the discussion and rejection cited above, as such, Examiner maintains the same rejections.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc R Filipczyk whose telephone number is 703-305-7156.

The examiner can normally be reached on Mon-Fri, 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 703-308-1436. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MF  
November 24, 2003

  
SAFET METJAHIC  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100